

1/11

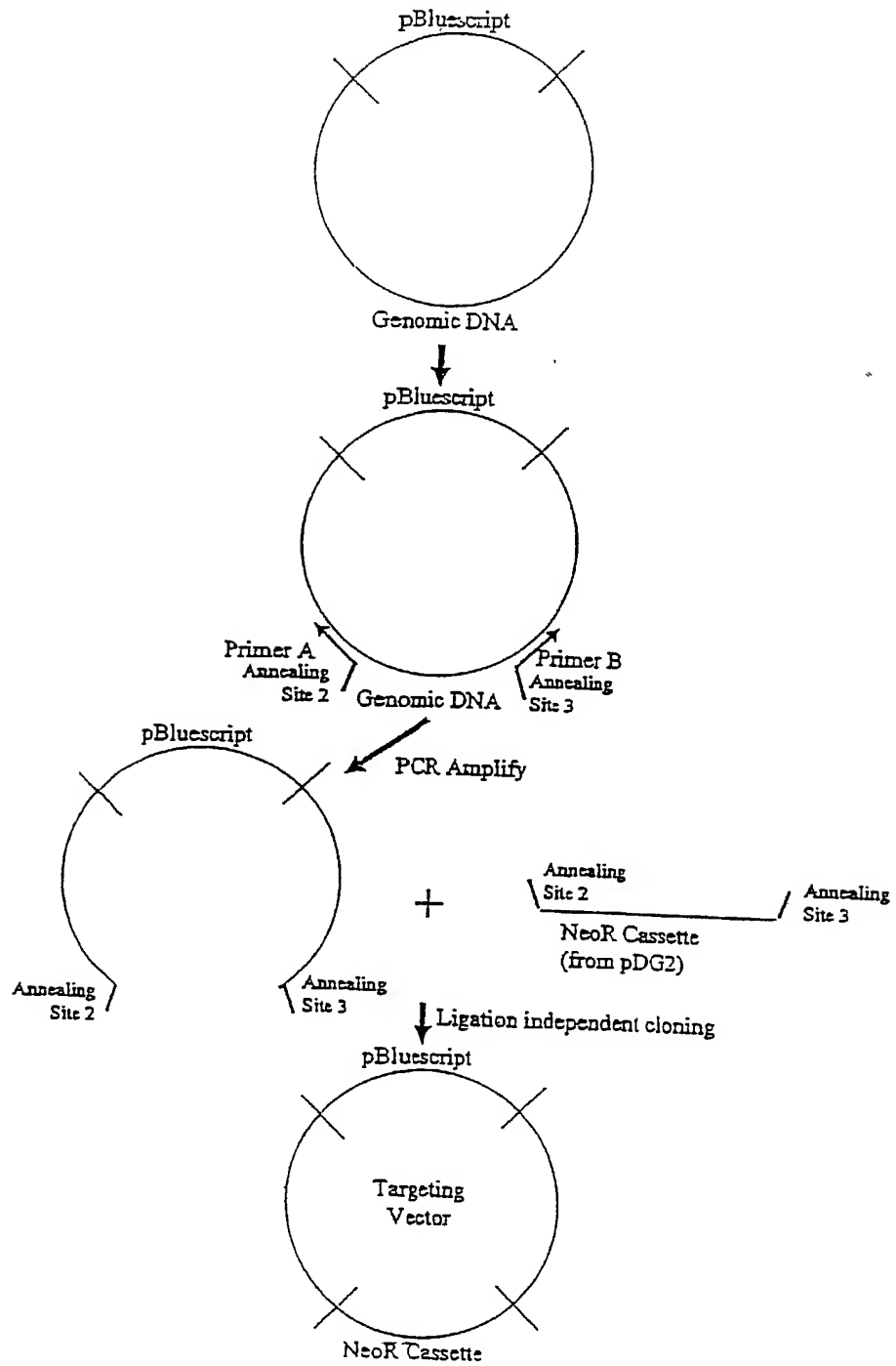


FIGURE 1

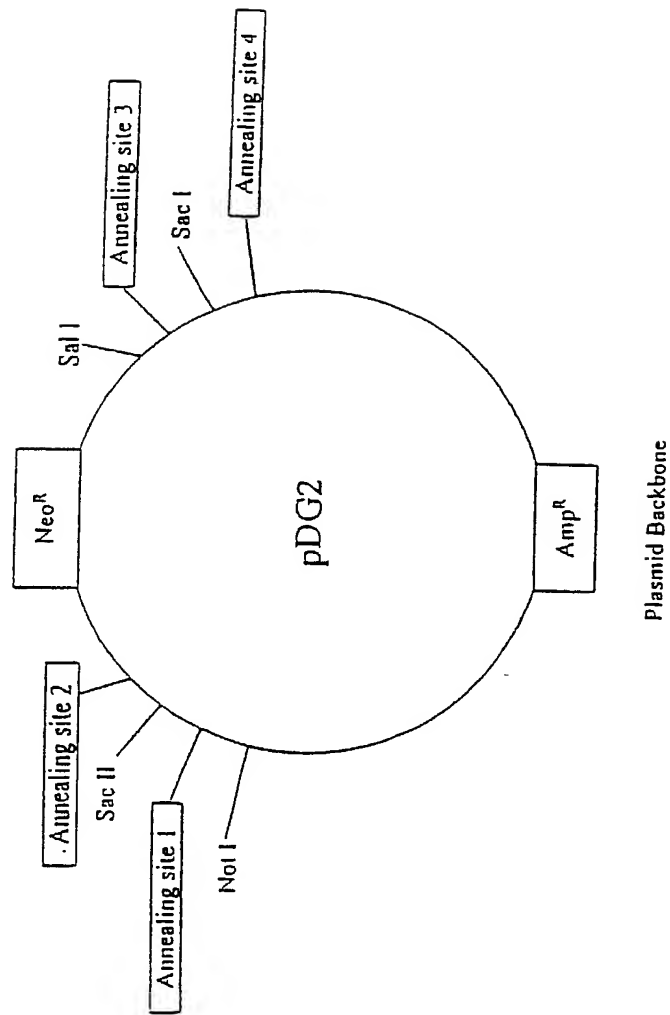


FIGURE 2A

3/11

GTTAACTACG TCAGGTGGCA CTTTTCGGGG AAATGTGCGC GGAACCCCTA TTTGTTTATT TTTCTAAATA CATTCAAATA
 TGTATCCGCT CATGAGACAA TAACCCGTGAT AAATGCTTCA ATAATATTGA AAAAGGAAGA GTATGAGTAT TCAACATTTT
 CGTGTGCGCC TTATTCCCTT TTTTTCGGCA TTTTGCCTTC CTGTTTTTGC TCACCCAGAA ACCTGCTGTA AAGTAAAGAA
 TGCTGAAGAT CAGTTGGGTG CACGAGTGGG TTACATCGAA CTGGATCTCA ACAGCGGTAA GATCCTTGAG AGTTTTTCGCC
 CCGAAGAACG TTCTCCAATG ATGAGCACTT TTAAGTTTCT GCTATGTGGC GCGGTATTAT CCGTGTGTGA CGCCGGGCAA
 GAGCAACTCG GTCCGCGCAT ACATCTATTCT CAGAATGACT TGGTTGAGTA CTCACCACTC ACAGAAAAGC ATCTTACGGA
 TGGCATGACA GTAAGAGAAT TATGCAGTGC TGCCATAACC ATGAGTGATA AACTGCGGCC CACTTACTT CTGACAACGA
 TCGGAGGACC GAAGGAGCTA ACCGCTTTTT TGCACAACAT GGGGATCAT GTAACCTGCC TTGATCGTTG GGAACCGGAG
 CTGAATGAAG CCATACCAAA CGACGAGCGT GACACCAAGA TGCTGTAGC AATGGCAACA ACCTTGCACA AACTATTAA
 TGGCGAATA CTACTCTAG CTTCGCGCA ACAATTAATA GACTGGATGG AGGCGGATAA AGTTGCAGGA CCACCTCTGC
 GCTCGGCCCT TCCGGCTGGC TGGTTTTATT GTGATAAATC CTGATAAATC GTAGTTATCT ACACGACGGG GAGTCAGGCA ACTATGGATG AACGAAATAG
 CTGGGGCCAG ATGGTAAGCC CTCCCGTATC TAAGCATTGG TAACGTGTAG ACCAAGTTTA CTCATATATA CTTTAGATTG
 ACAGATCGCT GAGATAGGTG CCTCACTGAT CAAAACAGG AAGATTGTAT AAGCAAAAT TTAATTTGTA AACGTTAATA
 ATTTACCCCG GTTGATAATC AGAAAAGCCC CAAAACAGG AAGATTGTAT AAGCAAAAT TTAATTTGTA AACGTTAATA
 TTTTGTAAAT ATTCGCGTTA AATTTTTGTT AAATCAGCTC ATTTTTTAAAC CAATAGGCGG AAATCGGCAA AATCCCTTAT
 AAATCAAAG AAATAGCCCA GATAGGGTTG AGTGTGTGTC CAGTTTGGAA CAAGAGTCCA CTATTAAAGA ACCTGGACTC
 CAACGTCAAA GGGCGAAAAA CCGTCTATCA GGGCGATGGC CCACCTACGTG AACCATCACC CAAATCAAGT TTTTGGGGT
 CGAGGTGCGC TAAAGCACTA AATCGGAACC CTAAGGGGAG CCCCCTGATT AGAGCTTGAC GGGGAAAGCG AACGTGGCGA
 GAAAGGAAGG GAAGAAAGCG AAAGGAGCGG GCGCTAGGGC GCTGGCAAGT GTAGCGGTCA GTAGCGGTCA AACCCACA
 CCGCGCGCGC TTAATGCGCC GCTACAGGGC GCGTAAAAGG ATCTAGGTGA AGATCCTTTT TGATAATCTC ATGACCAAAA
 TCCCTTAAAG TGAGTTTTGG TTCACTGAG CGTCAGACCC CGTAGAAAAG ATCAAAGGAT CTCTTTGAGA TCCTTTTTTT
 CTGCGCGTAA TCTGCTGCTT GCAAAACAAA AAACCACCGC TACCAGCGGT GGTTTGTTTG CCGGATCAAG AGCTACCAAC
 TCTTTTTCCG AAGGTAACCT GCTTCAGCAG AGCGCAGATA CCAAACTAGT TTCTTCTAGT GTAGCCGCTAG TTAGGCCAAC
 ACTTCAAGAA CTCTGTAGCA CCGCTACAT ACCTCGCTCT GCTAATCTCTG TTACCACTGG CTAGCTGCGAG TGGCGATAAG
 TCGTGTCTTA CCGGGTTGGA CTCAGACGA TAGTTACCGG ATAGGCGCA GCGGTGCGG TGAACGGGGG GTTCGTGCAC
 ACAGCCGAGC TTGGAGCGAA CGACCTACAC CGAAGTGA TAACCTACAGC GTGAGCTATG AGAAAGCGCC AGCTTCCCG
 AAGGGAGAAA GCGCGACAGG TATCCGGTAA GCGGCAGGGT CGGAACAGGA GAGCGCACGA GAGCGGTTC ACACCAACA
 GCCTGTATC TTTATAGTCC TGTGCGGTTT CGCCACCTCT GACTTGAGCG TCGAATTTTG TGATGCTCGT CAGGGGGGGG
 GAGCCTATGG AAAAACGCCA GCAACGCGGC CTTTTACGG TTTCTGGCCT TTTGCTGGCC TTTTGTCTAC ATGTAATGTG
 AGTTAGCTCA CTCATTAGGC ACCCCAGGCT TTACACTTTA TGCTTCCGGC TCGTATGTTG TGTGGAATTG TGAGCGGATA
 ACAATTTTAC ACAGGAAACA GCTATGACCA TGATTACGCC AAGCTACGTA ATACGACTCA CTAGGCGGGC GCGTTTAAAC
 AATGTGCTCC TCTTTGGCTT GCTTCCGCGG GCCAAGCCAG AACAAGACCA GTTGACGTGA AGCTTCCCGG GACGCGTGCT
 AGCGGCGCGC CGAATTCTCG CAGGATTCGA GGGCCCCGCT AGGTCAATT TACCGGTAG GGGAGGCGCT TTTCCCAAGG
 CAGTCTGGAG CATGCGCTTT AGCAGCCCGC CTGGCATTG GCGCTACACA AGTGGCCTCT GGCCTCGCAC ACATTCCACA
 TCCACCGSTA GCGCCAACCG GCTCCGTCT TTTGGTGGCC CTTCCGCGCA CCTTCTACTC CTCCCTAGT CAGGAAGTTT
 CCCCCGCGCC CGCAGCTCGC GTCGTGACAG ACCTGACAAA TGGAAAGTAGC ACCTCTCACT AGTCTCGTGC AGATGGACAG
 CACCGCTGAG CAATGGAAGC GGTAGGCTT TTTGGGCGAG GGCCTATAGC AGCTTGTCTC CTTCGCTTTC TGGGCTCAGA
 GGCTGGGAAG GGGTGGGTCC GGGGGCGGGC TCAGGGGGCG GCTCAGGGGG GGGGCGGGCG CGAAGGTCTT CCGGAGGCC
 GGCAATCTCG CACGCTTCAA AAGCGCACGT CTGCGCGCT GTTCTCTCT TCCTCATCTC CGGGCCTTTC GACCTGCAGC
 CAATATGGGA TCGGCCATTG AACAAGATGG ATTGCACGCA GGTTCTCGGG CGCTTGGGT GGAGAGGCTA TTCGGCTATG
 ACTGGGCACA ACAGACAATC GGCTGCTCTG ATGCGCGCT GTTCCGGCTG TCAGCGCAGG GCGCGCCGCT TCTTTTTGTC
 AAGACCGACC TGTCCGGTGC CCTGAATGAA CTGCAGGAG AGGCAGCGCG GCTATCGTGG CTGGCCACGA CCGGCGTTCC
 TTGCGCAGCT GTGCTCGACG TTGTCACTGA AGCGGGAAG GACTGGCTGC TATTGGGCGA AGTGGCGGGG CAGGATCTCC
 TGTCATCTCA CCTGTCTCT GCGGAGAAAG TATCCATCAT GGCTGATGCA ATGCGGCGGC TGCATACGCT TGATCGGGCT
 ACCTGCCCAT TCGACCACA AGCGAAACAT CGCATCGAGC GAGCAGCTAC TCGATGGA GCGCGTCTTG TCGATCAGGA
 TGATCTGGAC GAAGAGCATC AGGGGCTCGC GCGCATGGCA GGCTCAAGG GCGCATGCC GACGCGGATG
 ATCTCGTCTG GACCCATGGC GATGCGCTGT TGCCGAATAT CATGGTGGAA AATGGCCGCT TTTCTGGAAT CATCGACTGT
 GGCGGCTGG GTGTGGCGGA CCGCTATCAG GACATAGCGT TGGCTACCGG TGATATTGCT GAAGAGCTTG GCGCGGAATG
 GGCTGACCGC TTTCTCGTGC TTTACGGTAT CCGCGCTCCC GATTGCGAGC GCATCGCCTT CTATCGCCTT CTTGACGAGT
 TCTTCTGAGG GGATCGATCC GTCTGTAAAG TCTGCAGAAA TTGATGATCT ATTAACAAT AAAGATGTCC ACTAAATGG
 AAGTTTTTCC TGTCTACTT TGTAAAGAAG GGTGAGAACA GAGTACCTAC ATTTTGAATG GAAGGATTGG AGCTACGGGG
 GTGGGGGTGG GGTGGGATTA GATAAATGCC TGCTCTTAC TGAAGGCTCT TTAATATTG TTTATGATAA TGTTCATAG
 TTGGATATCA TAATTTAAAC AAGCAAAACC AAATTAAGGG CCAGCTCATT CCTCCCACTC ATGATCTATA GATCTATAGA
 TCTCTCGTGG GATCATTGTT TTTCTCTTGA TTCCCACTTT GTGGTTCTAA GTACTGTGGT TTCCAAATGT GTCAGTTTCA
 TAGCCTGAAG AACGAGATCA GCAGCCTCTG TTCCACATAC ACTTCATTCT CAGTATTGTT TTGCCAAGTT CTAATTCATG
 CAGAAGCTGA CTCTAGATCT GGATCCGGCC AGCTAGGCGC TCGACCTCGA GTGATCAGGT ACCAAGGTC TCGCTCTGTG
 TCCGTTGAGC TCGACGACAC AGGACACGCA AATTAATTA GGCAGCGCCC TACCCTCTAG TCAAGGCTT AAGTGAGTCG
 TATTACGGAC TGGCCGTCTG TTTACACAGT CGTGACTGGG AAAACCCCTG CGTTACCCAA CTTAATCGCC TTGAGCACA
 TCCCCCTTTC GCCAGCTGGC GTAATAGCGA AGAGGCGCGC ACCGATCGCC CTTCCCAACA GTTGCGCAGC CTGAATGGCG
 AATGCGCTT CGCTTGGTAA TAAAGCCCGC TTCGGCGGGC TTTTTTTT;

FIGURE 2B

4/11

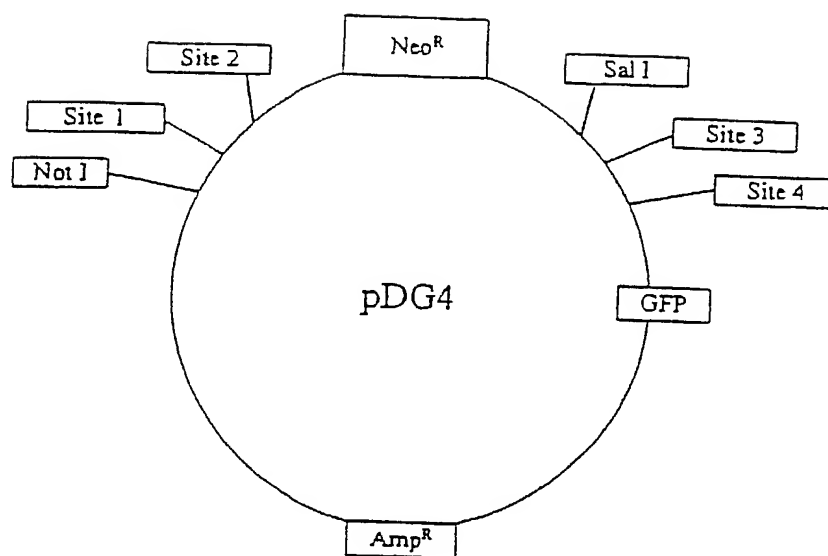


FIGURE 3A

5/11

GTTTAATAGT AATCAATTAC GGGGTCAATTA GTTCATAGCC CATATATGGA GTTCCGCGTT ACATAACTTA CGGTAAATGG
 CCCGCCCTGGC TGACCGCCCA ACGACCCCGG CCCATTGACG TCAATAATGA CGTATGTTCC CATAGTAACG CCAATAGGGA
 CTTTCCAATG ACGTCAATGG GTGGAGTATT TACGGTAAAC TGCCCACTTG GCAGTACATC AAGTGTATCA TATGCCAAGT
 ACGCCCCCTA TTGACGTCAA TGACGGAAAA TGCCCCCGCT GGCATTAAAG CCAGTACATG ACCTTATGGG ACTTTCCTAC
 TTGGCAGTAC ATCTACGTAT TAGTCATCGC TATTACCATG GTGATGCGGT TTTGGCAGTA CATCAATGGG CGTGGATAGC
 GGTTTGACTC ACGGGGATTT CCAAGTCTCC ACCCCATTGA CGTCAATGGG AGTTTGTITT GGCACCAAAA TCAACGGGAC
 TTTCCAAAAA GTCTGAACAA CTCGCCCCCA TTGACGCAAA TGGGCGGTAG GCGGTGACGG TGGGAGGTCT ATATAAGCAG
 AGCTGGTTTA GTGAACCGTC AGATCCGCTA GCGCTACCGG TCGCCACCAT GGTGAGCAAG GCGGAGGAGC TGTTCACCGG
 GGTGGTGCCT ATCTGTGTCG AGCTGGACGG CGACGTAAAC GGCCACAAAG TCAGCGTGTG CCGCGAGGGC GAGGGCGATT
 CCACCTACGG CAAGCTGACC CTGAAGTTCA TCTGCACCAC CGGCAAGCTG CCGGTGCCCT GGCCACCCCT CGTGACCATC
 CTGACCTACG GCGTGCAGTG CTTGAGCCGC TACCCCGACC ACATGAAGCA GCACGACTTC TTCAAGTCCG CCATGCCCGA
 AGGCTACGTC CAGGAGCGCA CCATCTTCTT CAAGGACGAC GGCAACTACA AGACCCGCGC CGAGGTGAAG TTCGAGGGCG
 ACACCCCTGGT GAACCGCATC GAGCTGAAGG GCATCGACTT CAAGGAGGAC GGCAACATCC TGGGGCACAA GCTGGAGTAC
 AACTACAACA GCCACAACGT CTATATCATG GCCGACAAGC AGAAGAACGG CATCAAGGTG AACTTCAAGA TCCGCCACAA
 CATCGAGGAC GGCAGCGTGC AGCTCGCCGA CCACTACCAG CAGAACACCC CCATCGCGGA CGGCCCGCTG CTGCTGCCCG
 ACAACCTA CTGAGGACC CAGTCCGCCC TGAGCAAGA CCCCACGAG AGCGCGATC ACATGCTCTG CAGTGGAGTTT
 GTGACCGCGC CCGGGATCAC TCTCGGCATG GACGAGCTGT ACAAGTCCGG ACTCAGATCC ACCGGATCA GATAACTGAT
 CATATACAG CATACCAT TGTAGAGGT TTTACTGTCT TTAATAAACC TCCACACCT CCCCCTGAAC CTGAACATA
 AAATGAATGC AATTGTTGTT GTTAACTTGT TTATTGCGC TTATAATGGT TACAAATAAA GCAATAGCAT CAGAAATTTT
 ACAATAAAG CATTTTTTCT ACTGCTTCTT AGTTGTGGTT TGTCCAAACT CATCAATGTA TCTTAACGCG AACTACGTCA
 GGTGGCAGTT TTCGGGGAAA TGTGCGCGGA ACCCTTATTT GTTTATTTTT CTAAATACAT TCAATATGT ATCCGCTCAT
 GAGACAATAA CCCTGATAAA TGCTTCAATA ATATTGAAAA AGGAAGAGTA TGAGTATTCA ACATTTCCGT GTCGCCCTTA
 TTCCTTTTTT TGCGGCATTT TGCTTCTCTG TTTTGTCTCA CCCAGAAACG CTGGTGAAAG TAAAGATGTC TGAAGATCAG
 TTGGGTGCAC GAGTGGGTTA CATCGAACTG GATCTCAACA GCGGTAAAGT CCTTGAGAGT TTTCCGCCCG AAGAACGTTT
 TCCAATGATG AGCACTTTTA AAGTTCTGCT ATGTGCGCGG GTATTATCCC GTGTTGACGC CCGGCAAGAG CAACTCGGTC
 GCGGCATACA CTATTCTCAG AATGACTTGG TTGAGTACTC ACCAGTCACA GAAAGCATC TTAACGATCG CATGACAGTA
 AGAGAATTAT GCAGTGCTGC CATAACCATG AGTGATAACA CTGCGGCCAA CTACTTCTG ACAACACTCG GAGGACCGAA
 GGAGCTAACG GCTTTTTTGC ACAACATGGG GGATCATGTA ACTCGCCTTG ATCGTTGGGA ACCCGAGCTG AATGAAGCCA
 TACCAAAACGA CGAGCGTGAC ACCAGATGCT CTGTAGCAAT GGCAACAACG TTGCGCAAC ATTAACCTG CGAACTACTT
 ACTCTAGCTT CCCGGCAACA ATTAATAGAC TGGATGGAGG CGGATAAAGT TGCAGGACCA CTTCTGCGCT CGGCCCTTCC
 GGCTGGCTGG TTTATTGCTG ATAAATCTGG AGCCGGTGAG CGTGGGTCTC GCGGTATCAT TGCAGCACTG GGGCCAGATG
 GTAAGCCCTC CCGTATCGTA GTTATCTACA CGACGGGGAG TCAGGCAACT ATGGATGAAC GAAATAGACA GATCGCTGAG
 ATAGGTGCCT CACTGATTAA GCATTGGTAA CTGTGAGACC AAGTTTACTC ATATATACCT TAGATTGATT TACCCCGGTT
 GATAATCAGA AAAGCCCCAA AAACAGGAAG ATTGTATAAG CAAATATTTA AATTGTAAAC GTTAATAATT TGTAAAAATT
 CGCGTTAAAT TTTTGTAAAA TCAGCTCATT TTTTAAACAA TAGGCCGAAA TCGGCAAAAT CCCCATAAAA TCAAAAGAAAT
 AGCCCGAGAT AGGGTTGAGT GTTGTTCGAG TTTGGAACAA GAGTCCACTA TTAAGAAACG TGGACTCCAA CGTCAAAGGG
 CGAAAAACCG TCTATCAGGG CGATGGCCCA CTACGTGAAC CATCACCCAA ATCAAGTTTT TTGGGGTCGA GGTGCCGTAA
 AGCACTAAAT CGGAACCCCTA AAGGGAGCCC CCGATTAGA GCTTGACGGG GAAAGCGAAC GTGGCGAGAA AGGAAGGGAA
 GAAAGCGAAA GGAGCGGGCG CTAGGGCGCT GGCAAGTGTA GCGGTACGCG TGCGCGTAAC CACCACACCC GCCGCGCTTA
 ATGCGCGCCT ACAGGGCGCG TAAAAGGATC TAGGTGAAGA TCCTTTTTGA TAATCTCATG ACCAAAATCC CTTAACGTGA
 GTTTTCGTTT CACTGAGCGT CAGACCCCGT AGAAAAGATC AAAGGATCTT CTTGAGATCC TTTTTCCTG CGCGTAATCT
 GGTGCTTGCA AACAAAAAAA CCACCGCTAC CAGCGGTGGT TTGTTTCCCG GATCAAGAGC TACCAACTCT TTTTCCGAAG
 GTAACCTGGT TCAGCAGAGC GCAGATACCA AATACTGTTT TTCTAGTGTA GCCGTAGTTA GGCCACCACT TCAAGAACTC
 TGTAGCACCG CCTACATACC TCGCTCTGCT AATCCTGTTA CCAGTGGCTG CTGCCAGTGG CGATAAGTCG TGTCTTACCG
 GGTGGGACTC AAGACGATAG TTACCGGATA AGGCGCAGCG GTCCGGCTGA ACGGGGGGTT CGTGACACCA CCCCAGCTTG
 GAGCGAACGA CCTACACCGA ACTGAGATAC CTACAGCGTG AGCTATGAGA AAGCGCCACG CTTCCCGAAG GGAGAAAGGC
 GGACAGGTAT CCGGTAAAGC GCAGGGTCCG AACAGGAGAG CGCACGAGGG AGCTTCCAGG GGGAAACGCC TGTATCTTT
 ATAGTCTGT CCGGTTTTCGC CACCTCTGAC TTGAGCGTGC ATTTTGTGTA TGCTCGTCAG GGGGGCGGAG CCTATGGAAA
 AACGCCAGCA ACGCGGCCTT TTTACGGTTC CTGGCCTTTT GCTGGCCTTT TGCTCACATG TAATGTGAGT TAGCTCACTC
 ATTAGGCACC CCAGGCTTTA CACTTTATGC TTCCGGCTCC TATGTTGTGT GGAATTGTGA GCGGATAACA ATTTACACAC
 GGAAACAGCT ATGACCATGA TTACGCCAAG CTACGTAATA CGACTCACTA GCGGCGCGCG TTTAAACAA GTGCTCTCTT
 TTGGCTTGT TCCGCGGGCC AAGCCAGACA AGAACCAATT GACGTCAAGC TTCCCGGGAC GCGTGCTAGC GCGCGCCGCA
 ATTCTGCAG GATTGAGGG CCCCTGCAGG TCAATTCTAC CCGGTAGGGG AGGCGCTTTT CCCAAGGCAG TCTGGAGCAT
 GCGCTTTAGC AGCCCGCGTG GCACTTGGCG CTACACAAGT GGCCTCTGGC CTCGCACACA TTCCACATCC ACCGGTAGCG
 CCAACCGGCT CCGTTCTTTG GTGGCCCTTT CGCGCCACCT TCTACTCTC CCCTAGTCAG GAAGTTCCCC CCGGCCCGCG
 AGCTCGCGTC GTGCAGGACG TGACAAATGG AAGTAGCACG TCTCACTAGT CTCGTGCAGA TGGACAGCAC CGCTGAGCAA
 TGGAGCGGG TAGGCCTTTG GGGCAGCGGC CAATAGCAGC TTTGCTCTTT CGCTTCTGG GCTCAGAGGC TGGGAAGGGG

FIGURE 3B1

6/11

```

TGGGTCCGGG GCGGGGCTCA GGGGGGGGCT CAGGGGGCGG GCGGGGCGGA AGGTCTCTCC GAGGCCCCGC ATTCTCGCAC
GCTTCAAAAG CGCACGTCTG CCGCGCTGTT CTCCTCTTCC TCATCTCCGG GCCTTTCGAC CTGCAGCCAA TATGGGATCG
GCCATTGAAC AAGATGGATT GCACGCAGGT TCTCCGGCCG CTTGGGTGGA GAGGCTATTG GGCTATGACT GGGCACAAAC
GACAATCGGC TGCTCTGATG CCGCGGTGTT CCGGCTGTCA GCGCAGGGGC GCCCGGTTCT TTTTGTCAAG ACCGACCTGT
CCGGTGCCCT GAATGAATG CAGGACGAGG CAGCGCGGCT ATCGTGGCTG GCCACGACGG GCGTTCCCTG CGCAGCTGTG
CTCGACGTTG TCACTGAAGC GGGAAAGGAC TGGCTGCTAT TGGGCGAAGT GCCGGGGCAG GATCTCCTGT CATCTCACCT
TGCTCCTGCC GAGAAAAGTAT CCATCATGSC TGATGCAATG CCGGCGGCTGC ATACGCTTGA TCCGGCTACC TGCCCATTCG
ACCACCAAGC GAAACATCGC ATCGAGCGAG CACGTACTCG GATGGAAGCC GGTCTTGTG ATCAGGATGA TCTGGACGAA
GAGCATCAGG GGCTCGCGCC AGCCGAACCT TTCGCCAGGC TCAAGGCGCG CATGCCCGAC GGCATGATC TCGTCGTGAC
CCATGGCGAT GCCTGCTTGC CGAATATCAT GGTGGAAAAT GGGCGCTTTT CTGGATTCT CATCTGTGGC CGGCTGGGTG
TGGCGGACCG CTATCAGGAC ATAGCGTTGG CTACCCGTGA TATTGCTGAA GAGCTTGGCG GCGAATGGGC TGACCGCTTC
CTCGTGCTTT ACGGTATCGC CGCTCCCGAT TCGCAGCGCA TCGCCTTCTA TCGCCTTCTT GACGAGTTCT TCTGAGGGGA
TCGATCCGTC CTGTAAGTCT GCAGAAATTG ATGATCTATT AAACAATAAA GATGTCCACT AAAATGGAAG TTTTCTCTGT
CATACTTTGT TAAGAAGGGT GAGAACAGAG TACCTACATT TTGAATGGAA GGATTGGAGC TACGGGGGTG GGGGTGGGGT
GGGATTAGAT AAATGCCCTGC TCTTTACTGA AGGCTCTTTA CTATTGCTTT ATGATAATGT TTCATAGTTG GATATCATAA
TTTAAACAAG CAAAACCAAA TTAAGGGCCA GCTCATTCTT CCCACTCATG ATCTATAGAT CTATAGATCT CTCGTGGGAT
CATTGTTTTT CTCCTTGATTC CCACTTTTGT GTTCTAAGTA CTGTGGTTTC CAAATGTGTC AGTTTTCATG CCTGAAGAAC
GAGATCAGCA GCCTCTGTTC CACATACACT TCATTCTCAG TATTGTTTTG CCAAGTTCTA ATTCCATCAG AAGCTGACTC
TAGATCTGGA TCCGGCCAGC TAGGCCGTG ACCTCGAGTG ATCAGGTACC AAGGTCTCTG CTCTGTGTCC GTTGAGCTCG
ACGACACAGG ACAACGCAAT TAATTAAGGC CCGCCCGTAC CCTCTAGTCA AGGCCTTAAG TGAGTCGTAT TACGGACTGG
CCGTGTTTTT ACAACGTCGT GACTGGGAAA ACCCTGGCGT TACCCAACTT AATCGCCTTG CAGCACATCC CCCTTTCGCC
AGCTGGCGTA ATAGCGAAGA GGGCCGCACC GATCGCCCTT CCCAACAGTT GCGCAGCCTG AATGGCGAAT GCGCCTTCG
TTGGTAATAA AGCCCGCTTC GGGGGGCTTT TTTTT

```

FIGURE 3B2

Annealing site	Sequence	Sequence after digestion
1	5' tgtgctcctcttttggttggttccaa... 3' 3' acacgaggagaaacccgaacgaaggtt... 5'	5' tgtgctcctctcttggcttgcttccaa... 3' 3' tt... 5'
2	5' ctggttcttgcttggttggttccaa... 3' 3' gaccaagaacagacccgaacgggtt... 5'	5' ctggttcttgcttggttggttccaa... 3' 3' tt... 5'
3	5' ggtcctcgctctgtgtccgttgaa... 3' 3' ccaggagcgcagacacaggaactt... 5'	5' ggtcctcgctctgtgtccgttgaa... 3' 3' tt... 5'
4	5' ttgctgtcctgtgtcgtcgaa... 3' 3' aaacgcacaggacacagcagcgtt... 5'	5' ttgctgtcctgtgtcgtcgaa... 3' 3' tt... 5'

FIGURE 4

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Annealing site	Sequence	Sequence after digestion
1	5' AAtgtgctcctctcttggcttgcttccgc 3' Ttacacgaggagaaacccaaggaagg	5' AA 3' Ttacacgaggagaaacccaaggaagg
2	5' AActggttcttctgtctggcttgccgc 3' Ttgaccaagaacagaccgaaccggg	5' AA 3' Ttgaccaagaacagaccgaaccggg
3	5' AAggtcctcgctctgtgtccgttgagct 3' Ttccaggagcgagacacagggcaac	5' AA 3' Ttccaggagcgagacacagggcaac
4	5' AAtttgcgtgtcctgtgtcgtcagagct 3' Ttaaacgcacaggacacagcagc	5' AA 3' Ttaaacgcacaggacacagcagc

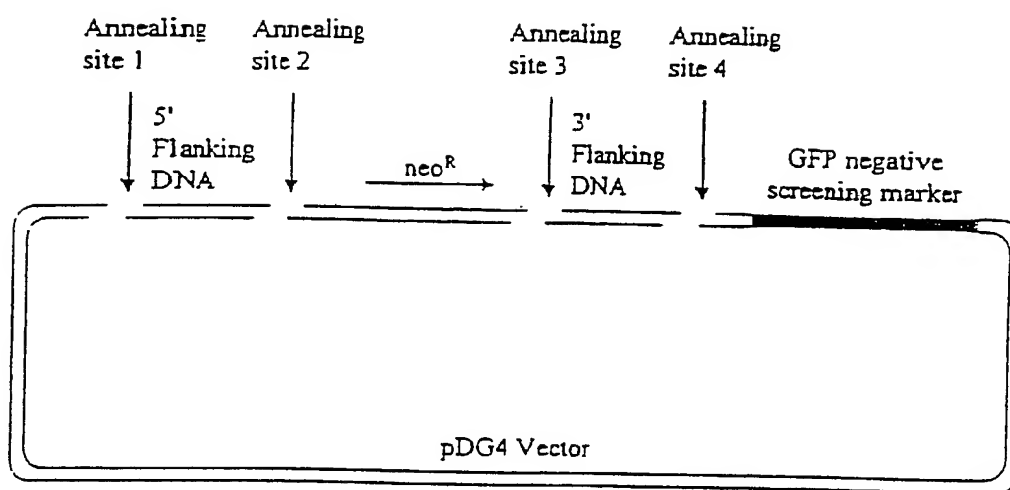
FIGURE 5

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Diagram of the pDG2 Vector structure. The vector is a circular plasmid. Four annealing sites are marked: Annealing site 1, Annealing site 2, Annealing site 3, and Annealing site 4. Between Annealing site 1 and Annealing site 2 is the 5' Flanking DNA region. Between Annealing site 3 and Annealing site 4 is the 3' Flanking DNA region. An arrow labeled neo^R points from Annealing site 2 to Annealing site 3, indicating the location of the neomycin resistance gene.

10/11

FIGURE 7



Oligo#	Sequence (5' to 3')
174	ATGACCGCTCAGGAAACCTGTTGCA
180	ATAGGCATAGTAGGCCAGCTTGAGG
454	tgtgctcctctttggcttgcttccAATTAAACCTCACTAAAGGGAACGAAT
463	ctgggttcttgtctggcttggcccaaTGCAACAGGTTTCCTGAGCGGTCAT
464	ggtcctcgctctgtgtccgttgaaCCTCAAGCTGGCCTACTATGCCTAT
42	tttgcgtgtcctgtgtcgtcgaaCGACTAATACGACTCACTATAGGGCG
151	GCCAATGGACTCTTAGTTTGGAAAC
155	GTTCTGGCAAACAAATTCGGCGCAC
454	tgtgctcctctttggcttgcttccAATTAAACCTCACTAAAGGGAACGAAT
465	ctgggttcttgtctggcttggcccaaGTTCCAAACTAAGAGTCCATTGGC
466	ggtcctcgctctgtgtccgttgaaGTGCGCCGAATTTGTTTGCCAGAAC
1	GAACCTTGGTGTGCCAAGTTACTTC
2	GAACCTTGGCTGAACCCCTTGTTC
41	tgtgctcctctttggcttgcttgaCGACTAATACGACTCACTATAGGGCG
38	ctgggttcttgtctggcttggcccaaGAAGTAACTTGGCACACCAAGGTTTC
40	ggtcctcgctctgtgtccgttgaaAGAACAAGGGGTTAGCCAAAGTTC
37	tttgcgtgtcctgtgtcgtcgAATTAAACCTCACTAAAGGGAACGAAT
540	ATGCCGGATCTCCTACTACTGGGCC
546	TGTCATAGTAGACAGCGATGGAACG
445	GACAAGAACCAGTTGACGTCAAGCTTCCCGGGACGCGTGCTAGCGGCGCGCCG
667	ctgggttcttgtctggcttggcccaaGGCCCACTAGTAGGAGATCCGGCAT
668	ggtcctcgctctgtgtccgttgaaCGTTCCATCGCTGTCTACTATGACA
907	ctgggttcttgtctggcttggcccaaAAAGCCGACAGCCACGCTCACAAGC
908	ggtcctcgctctgtgtccgttgaaGCCCAATGCCACAGAGACAGAATGT
1157	ctgggttcttgtctggcttggcccaaGTTGGATCCTCTCCAAGGCCCATCT
1158	ggtcctcgctctgtgtccgttgaaCTCCAGTGCCGAGTGTGTGGGGACAG

Figure 8